

METHOD AND SYSTEM FOR INSERTING PROBE POINTS IN FPGA-BASED
SYSTEM-ON-CHIP (SoC)

ABSTRACT

Probe points can be inserted (430) into an FPGA-based embedded processor SoC (305a) while specifying hardware and software cores with a design automation tool. This tool then aids the user (via high level GUI) in imbedding logic analysis functions in the SoC and connecting selected monitor signals to the logic analyzer. The design automation tool provides the necessary support files for the logic analysis software suite for naming and formatting of monitor signals on the waveform display. Trigger and trace information can be captured for the probe points and waveforms representing the captured information can be displayed (450) for analysis.

An integrated logic analyzer core can be downloaded (440) into the FPGA-based embedded processor SoC to facilitate insertion of the probe points and capture of information. A software application can receive the captured information and translate it into a format suitable for display.